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EXAMINER

ALBERTALLI, BRIAN LOUIS

ART UNIT PAPER NUMBER

2655

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/005,909

Applicant(s)

THOMAS ET AL.

Examiner

Brian L Albertalli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/19/02, 4/2/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Voice Service System and Method for Masking an Operator's Voice.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7-13, and 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Polcyn (U.S. Patent 6,614,885).

In regard to claim 1, Polcyn discloses a voice service system comprising:

an interactive voice response unit for interactively dealing with a call from a human caller (Fig. 1, call director 102-N, column 3, lines 54-59),

an operator subsystem by which a human operator can verbally interact with the caller (Fig. 3, detail of the large vocabulary speech recognition system 30 includes an agent/operator management application 33, column 6, lines 19-23), and

a transfer arrangement for transferring handling of the call at least in one direction between the operator subsystem and the voice response unit (call director 102-N transfers the caller's response to central speech recognition system 30, column 4, lines 8-18; which, in turn, transfers the response to the live operator, column 4, lines 36-39);

the operator subsystem including a masking arrangement for causing the operator's verbal interaction with the caller to be done through a synthesized voice whereby to mask from the caller that they are talking to a human operator, the transfer arrangement being usable by the operator to have handling of a call transferred to the voice response unit (the agent sends commands to the remote control director 102-N which prompts the user for additional information, column 6, lines 25-30).

In regard to claim 2, Polcyn discloses the masking arrangement comprises text response means for generating text messages from the operator, and means for passing these messages to a text-to-speech converter for output to the caller (the operator inputs data through the agent terminal 15, column 6, lines 31-32).

Agent terminal 15 is clearly shown in Fig. 1 and Fig. 3 as a standard computer terminal with a keyboard. The data entered through agent terminal 15 by the operator, therefore, must inherently be text messages.

Furthermore, in Fig. 1, it is clear that the caller uses a standard telephone 16-N that conveys information to a caller audibly. The interaction with the caller is conducted through call director 102-N, which "operates like prior art call directors" and "conducts a dialog with the caller" (column 3, lines 54-58). The text messages entered by the operator, then, must inherently be converted from text to speech in a text-to-speech converter within call director 102-N.

In regard to claims 3,11, and 17, Polcyn discloses the text-to-speech converter is part of the voice response unit and provides the same synthesized voice to the caller whether the call is being handled by the operator subsystem or by the voice response unit (all commands sent by the operator control the remote director 102-N functions which prompts the user for additional information, column 6, lines 25-30; doing so eliminates the conversation of the operator with the caller and makes it appear that the call was handled without a live operator, column 2, lines 47-54).

In regard to claim 4, 12, and 18, Polcyn discloses the text response means comprises a keyboard for operator entry of text messages (the operator inputs data through the agent terminal 15, column 6, lines 30-31; agent terminal 15 is clearly shown in Fig. 1 and Fig. 3 as a standard computer terminal with a keyboard).

In regard to claim 5, 13, and 19, Polcyn discloses text response means comprises a speech recognizer for receiving voice input from the operator and

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generating text messages (the operator inputs data through agent telephone 14 which is analyzed by speech recognition system 30, column 6, lines 31-34).

In regard to claim 7, Polcyn discloses the transfer arrangement includes an analysis subsystem for analyzing the caller's inputs when the voice response unit is handling the call whereby to determine whether the caller requires operator assistance; the analysis subsystem being operative, upon determining that the caller requires operator assistance, to cause the transfer arrangement to transfer the call to the operator subsystem (if the caller's utterance is not recognized by the large vocabulary speech recognition system 30, which indicates that operator assistance is needed to complete the interaction, the utterance is transferred to a live operator, column 4, lines 37-40).

In regard to claim 8, Polcyn discloses a voice service system comprising an interactive voice response unit for interactively dealing with a call from a human caller (Fig. 1, call director 102-N, column 3, lines 54-59), an operator subsystem by which a human operator can verbally interact with the caller (Fig. 3, detail of the large vocabulary speech recognition system 30 includes an agent/operator management application 33, column 6, lines 19-23), and transfer means for transferring handling of the call between the voice response unit and the operator subsystem (call director 102-N transfers the caller's response to central speech recognition system 30, column 4, lines 8-18; which, in turn, transfers the response to the live operator, column 4, lines 36-

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39); the voice service system having masking means for causing the operator's verbal interaction with the caller to be done through a synthesized voice whereby to mask from the caller that they are now talking to a human operator, the transfer means being usable by the operator to have handling of a call transferred to the voice response unit (the agent sends commands to the remote control director 102-N which prompts the user for additional information, column 6, lines 25-30).

In regard to claim 9, Polcyn discloses a method of providing voice services in respect of a call placed by a human caller, the method comprising the steps of:

(a) carrying out an verbal interaction between the caller and a human operator (control of the call is passed to a live agent, column 6, lines 62-65);

(b) at the instigation of the operator, transferring the call to an interactive voice response unit (agent enters codes at terminal 15 to call director 102-N to complete the call, column 7, lines 2-5); and

(c) continuing verbal interaction with the caller through the voice response unit. the operator's verbal interaction with the caller in step (a) being done through a synthesized voice whereby to mask from the caller that they are talking to a human operator (the remote control director 102-N which prompts the user for additional information, column 6, lines 25-30).

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In regard to claim 15, Polcyn discloses a method of providing voice services in respect of a call placed by a human caller, the method comprising the steps of:

(a) enabling voice interaction between the caller and a voice response unit (call director 102-N interacts with the caller, column 6, lines 49-51);

(b) analyzing the caller's interaction with the voice response unit to determine whether the caller requires operator assistance (confidence level of speech recognition application 32 is checked, column 6, lines 62-64) ;

(c) where this analysis indicates that operator assistance is required, transferring the call to a human operator (if the confidence level of speech application 32 is not high enough, control of the call is passed to a live agent, column 6, lines 64-65); and

(d) carrying out a verbal interaction between the caller and a human operator, this interaction being done through a synthesized voice whereby to mask from the caller that they are talking to a human operator (the agent sends commands to the remote control director 102-N which prompts the user for additional information, column 6, lines 25-30).

In regard to claim 10 and 16, Polcyn discloses the operator's verbal interaction with the caller involves generating a text message from operator input and passing this message through a text-to-speech converter to output the operator input in said synthesized voice (the operator inputs data through the agent terminal 15, column 6, lines 31-32).

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Agent terminal 15 is clearly shown in Fig. 1 and Fig. 3 as a standard computer terminal with a keyboard. The data entered through agent terminal 15 by the operator, therefore, must inherently be text messages.

Furthermore, in Fig. 1, it is clear that the caller uses a standard telephone 16-N that conveys information to a caller audibly. The interaction with the caller is conducted through call director 102-N, which "operates like prior art call directors" and "conducts a dialog with the caller" (column 3, lines 54-58). The text messages entered by the operator, then, must inherently be converted from text to speech in a text-to-speech converter within call director 102-N.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polcyn, in view of Galvin (U.S. Patent 5,874,939).

Polcyn does not disclose that the text messages output by the speech recognizer are passed to an editing console of the operator subsystem to enable the operator to check and edit the messages prior to output to the text-to-speech converter.

Galvin discloses a method and apparatus for allowing users to input text via a speech recognizer. Text messages output by the speech recognizer are passed to an editing console of the operator subsystem to enable the operator to check and edit the messages (when recognized word has not been recognized with a predetermined degree of accuracy the most likely candidate is shown on a display; the operator can then enter the correct word using the keyboard, column 4, lines 49-54 and column 4 line 67 to column 5 line 3).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Polcyn to pass the text messages output by the speech recognizer to an editing console so the user could manually correct any inaccuracies generated by the speech recognizer, which would increase the accuracy of the speech recognition process, as taught by Galvin (column 4, lines 46-48 and column 5, line 46 to column 6, line 1).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stuart et al. (U.S. Patent 6,243,684) discloses a system in which the operator uses a speech recognizer to retrieve information requested by a caller. Bruce et al. (U.S. Patent 6,539,080) discloses a system in which an operator releases driving directions to a caller using a text-to-speech converter. Chaves (U.S. Patent 6,510,414) discloses a data entry system that recognizes speech from the caller and allows an operator to edit the data. Vrieus et al. (U.S. Patent 6,397,187) discloses an

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operator terminal with a speech recognizer for recognizing the operator's speech and automatically returning answers to a user.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (703) 305-1817. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 305-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 11/2/04


SUSAN MCFADDEN
PRIMARY EXAMINER